

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Spencer Hunter on September 19, 2008.

2. The claims have been amended as follows:

Claim 39, at line 5, after "communication type", insert --, and further specifying a protocol-independent authentication type for authenticating with the Web service implementation--.

Claim 51 (Currently Amended) A method comprising:

selecting a Web service implementation comprising a plurality of Web service operations and a plurality of Web service parameters;

generating a first virtual interface to the Web service implementation, the first virtual interface to expose a first subset of the Web service operations and Web service parameters;

generating a second virtual interface to the Web service implementation, the second virtual interface to expose a second subset of the Web service operations and Web service parameters different, at least in part, than the first subset of the Web service operations and Web service parameters;

generating a Web service definition for each of the first and second virtual interfaces,
each Web service definition specifying a protocol-independent communication type for
communications with the Web service implementation via the first and second virtual interfaces,
and further specifying a protocol-independent authentication type for authentication with the
Web service implementation via the first and second virtual interfaces;

generating a Web service deployment descriptor for each Web service definition, each
Web service deployment descriptor defining a communication protocol to implement the
protocol-independent communication type specified by the Web service definition, and further
defining an authentication protocol to implement the protocol-independent authentication type
specified by the Web service definition; and

sending the Web service implementation, the first and second virtual interfaces, the Web
service definition for each of the first and second virtual interfaces, and the Web service
deployment descriptor for each Web service definition to a Web service directory server.

Claim 53 Canceled.

Claim 54, at line 1, replace “53” with –51--.

Claim 60 (Currently Amended) An article of manufacture having instructions stored
thereon that, when executed by a processor, cause the processor to perform a method comprising:
selecting a Web service implementation comprising a plurality of Web service operations
and a plurality of Web service parameters;

generating a first virtual interface to the Web service implementation, the first virtual interface to expose a first subset of the Web service operations and Web service parameters;

generating a second virtual interface to the Web service implementation, the second virtual interface to expose a second subset of the Web service operations and Web service parameters different, at least in part, than the first subset of the Web service operations and Web service parameters;

generating a Web service definition for each of the first and second virtual interfaces, each Web service definition specifying a protocol-independent communication type for communications with the Web service implementation via the first and second virtual interfaces, and further specifying a protocol-independent authentication type for authentication with the Web service implementation via the first and second virtual interfaces;

generating a Web service deployment descriptor for each Web service definition, each Web service deployment descriptor defining a communication protocol to implement the protocol-independent communication type specified by the Web service definition, and further defining an authentication protocol to implement the protocol-independent authentication type specified by the Web service definition; and

sending the Web service implementation, the first and second virtual interfaces, the Web service definition for each of the first and second virtual interfaces, and the Web service deployment descriptor for each Web service definition to a Web service directory server.

Claim 63, at line 1, replace “62” with –60--.

Claim 69, at line 1, after “system”, insert –having at least one processor--.

3. The following is an examiner’s statement of reasons for allowance:

As to claims 38-52, 54-61, and 63-74, the prior art of record does not teach or render obvious the limitations recited in claims 38, 51, 60, and 69, when taken in the context of the claims as a whole, specific to generate more than one virtual interfaces to a Web service implementation, each virtual interface exposes a subset of Web service operations and Web service parameters of the Web service implementation, generating a Web service definition for each of the virtual interface, each Web service definition specifying a protocol-independent communication type for communications with the Web service implementation via the virtual interfaces, and specifying a protocol-independent authentication type for authenticating with the Web service implementation via the virtual interfaces, generating a Web service deployment descriptor for each Web service definition, each Web service deployment descriptor defining a communication protocol to implement the specified protocol-independent communication, and defining an authentication protocol to implement the specified protocol-independent authentication type of the corresponding Web service definition, generating the deployable Web service archive which comprising the Web service implementation, the virtual interfaces, the Web service definition for each of the virtual interfaces, and the Web service deployment descriptor for each Web service definition, and sending the Web service archive to a web server.

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Moreover, evidence for modifying the prior art teachings by one of ordinary skill level in the art was not uncovered so as to result in the invention as recited in claims 38, 51, 60, and 69.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEM K. CAO whose telephone number is (571)272-3760. The examiner can normally be reached on Monday - Friday, 7:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 2195

DC
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